DOCUMENT RESUME

ED 410 976 IR 056 474

AUTHOR Jian, Ming
TITLE Empower Cataloging Staff with New Technology.
PUB DATE 1997-05-00
NOTE 13p.; Paper presented at the Annual Meeting of the Nebraska Library Association (Crete, NE, May 23, 1997).
PUB TYPE Reports - Descriptive (141) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Libraries; *Cataloging; Computer Networks; *Empowerment; Higher Education; Information Processing; Information Retrieval; Information Technology; Internet; *Library Automation; *Library Catalogs; *Library Personnel; Library Technical Processes; Microcomputers; Online Catalogs
IDENTIFIERS *Technology Integration; University of Nebraska Lincoln

ABSTRACT

Advances in computers and information technology have created huge potentials for cataloging staff to increase efficiency and accuracy, reorganize the work force, change the workflow, streamline costs, and provide better services to patrons. Based on the practices at the University of Nebraska-Lincoln (UNL), this paper discusses what a librarian can do to take the initiative and take advantage of new information technology in a cataloging environment. Now more than ever, cataloging depends on information technology such as integrated local networks, integrated information retrieval systems, and bibliographic utilities. Empowering cataloging staff with new technology also becomes critical to efficiently providing access to a wide range of information sources. The paper also discusses forced integration of new information technology to be able to utilize new cataloging utilities, promoting work-related learning by staff, migrating to a Windows environment, and reaping the benefits of the Internet. In the information age, empowering library staff with new information technology has become one of the key issues for the success of a library. (Author/SWC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 410 976

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

EMPOWER CATALOGING STAFF WITH NEW TECHNOLOGY

Ming Jian
Love Library
University of Nebraska-Lincoln
Lincoln, Nebraska

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Ming Jian
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

ABSTRACT

Advances in computers and information technology have created huge potentials for cataloging staff to increase efficiency and accuracy, reorganize the work force, change the workflow, streamline costs, and provide better services to patrons. Based on the practices at UNL, this paper will discuss what a librarian, not an information technologist, can do to plug in and take advantage of new information technology in a cataloging environment.

INTRODUCTION

Technological changes in the last few decades, especially the development of information systems and technology, have changed our libraries and library services profoundly. The change began with computerizing the library's internal procedures, such as cataloging procedures and circulation. Cataloging was among the first areas in libraries to take advantage of new information technology. Now more than ever, cataloging depends on information technology such as integrated local networks, integrated information retrieval systems, and bibliographic utilities. Empowering cataloging staff with new technology also becomes critical to efficiently providing access to a wide range of information sources.

NO ALTERNATIVE TO LEARNING NEW INFORMATION TECHNOLOGY

In the last two decades, information technology has been very beneficial for cataloging

IR056474

BEST COPY AVAILABLE

operation. It made our work easier and more efficient. It streamlined operation costs, and provided better services to our patrons. Nevertheless, new information technology has also created new challenges for cataloging staff. It forces us to learn new technology and new cataloging tools, to acquire new hardware and software, to reorganize the work force, change the workflow, and give up or alter our work habits to adjust to the fast changing working environment.

Cataloging tools and the cataloging working environment have changed at an amazing pace in recent years. OCLC, for example, has been migrating from DOS and Windows 3.11-based desktop and software applications to a Windows 95 and Windows NT environment. OCLC has also been moving terminal server and serial ports over to a TCP/IP telecommunication environment (cf. Houk, 1996). Recently, OCLC announced that they will not support the DOS version of Passport anymore after 1997, and the dedicated lines using communication controller will be replaced with dedicated TCP/IP.

Last month, OCLC's CatME (Cataloging Micro Enhancer) product manager David Whitehair posted a message about OCLC CatME for Windows on the listserv Libsoft. He urged all the CatME users to learn new software such as Windows 95, Windows NT, and Windows-based applications. According to Whitehair, the user will not be able to use the new product unless he/she "has thorough knowledge of Windows-based applications" (Whitehair, 1997). This results from the upgrade of the new CatME product, which will require Windows 95 or Windows NT and a printer and printer driver compatible with Windows-based applications. OCLC will no longer support the DOS version of CatME soon after the new product is released. Many of the OCLC products mentioned above are cataloging tools we use on a daily basis. This means that if we do not upgrade our knowledge and learn how to use those new tools, we will end up being unable to carry out

our daily work.

Learning new information technology not only helps us keep up with the upgrading of cataloging tools, but also serves to keep our daily cataloging operation running smoothly. Over the last decade the use of computer and information technology in libraries has become a part of our everyday operation. Because of the widely use of computers, computing grew increasingly more decentralized. Every cataloging staff has to deal with computers on a daily basis. To ensure smooth daily operations, every one of us needs to become more knowledgeable about computer hardware, software applications, and basic computer troubleshooting. A minor computer hardware problem or printer problem often interrupts cataloging work flow, and frequently the problem could be fixed by just turning the computer or printer off and back on, by checking the cable connection, or by checking the software configuration. Staff members could easily solve many problems encountered in their work if they had some basic knowledge about computer hardware and some popular application software. With lean budgets it is impossible for most libraries to hire enough computing service staff to meet their growing needs. Encouraging staff to learn computer and information technology has become a more feasible approach to meet the challenges.

New information technology, the Internet in particular, also creates opportunities for us to enhance our capability of organizing information and providing better information access. At UNL, we have used the Internet, especially the World Wide Web, as the vehicle for expanding access to information beyond the library's walls. We have incorporated our library's home page and the Internet cataloging database into the integrated information sources provided by the libraries.

LEARNING NEW INFORMATION TECHNOLOGY IN A LEARNING ORGANIZATION

The issue of empowering library staff with new technology is often not so much one of acquiring new equipment and software, but one of stressing and promoting work-related learning by staff. Promoting work-related learning is the essence of the theory of learning organization (To learn more about learning organization theory, see Argyris 1991, and Senge, 1990). Learning organization is a management theory which has been practiced by many successful corporations and institutions. A learning organization promotes work related learning by all members of the organization as a way for the organization to adjust to a fast changing environment.

The UNL libraries launched a campaign last year to become a learning organization. The libraries encourage learning at the individual, group, and organizational levels. At the individual level, everyone is encouraged to take responsibility for his/her attitudes and for his/her learning in the work setting. At the group level, all group members are encouraged to develop ways to share learning experiences within their units and between units so that the organization as a whole can benefit. At the organizational level, we strive to create a learning environment and encourage all staff to see the larger picture of the organization as we design new ways to do things.

To help all library staff to acquire knowledge of new information technology, we built a new training room equipped with new computers and new information technology. We conducted a series of workshops on topics such as UNIX, DOS, Windows, Netscape, various Internet tools (World Wide Web, Web browsers, HTML, Gopher, FTP, Email, Listserv), networks, computer troubleshooting, OCLC, and various communication

software applications such as PINE, Netterm, Passport for Windows, etc. These workshops are open and tailored to all library staff. Many of these workshops are conducted by librarians and library staff who are knowledgeable about the new technology. We have several training teams consisting of volunteers from different departments. They work with system experts to develop training materials, organize and conduct workshops. The Automated System Office has developed a liaison program to give the representatives chosen from each unit intensive training on new information technologies.

According to the theory of the learning organization, there are two types of learning: maintenance learning and anticipatory learning. Maintenance learning is discovering better ways to do current procedures and tasks. Anticipatory learning allows participants to explore alternatives, share ideas, and consider how new knowledge helps the organization reach its goal. As a learning organization, UNL libraries strive to increase anticipatory learning and encourage individuals to acquire new knowledge and incorporate the new knowledge into their workplace. In a cataloging environment, there are many possibilities for us to take advantage of new technology to improve our work.

TAKING ADVANTAGE OF A WINDOWS ENVIRONMENT

Computers, networks, information retrieval systems, and bibliographic utilities have significantly improved the efficiency and accuracy of cataloging operations. The advance of new information technology continues to provide us with tools to make our daily cataloging work easier. A typical example is the Windows environment. Windows' ability to run multiple applications at the same time and transfer data easily and rapidly between applications provides a more efficient working environment for cataloging. In original cataloging, we often need to transfer data from one record to another, from one database to

another, and from one system to another. This is especially true for our Internet cataloging.

The Internet cataloging at UNL emphasizes on providing more useful access points and more information that could help a patron find needed resources with relative ease and in a timely manner. Accordingly, the procedure of our Internet cataloging not only requires catalogers to locate relevant information such as the resource's originator and affiliated corporate bodies, but also to provide a content summary, annotations, and the table of contents of the Internet site. As a result, we usually need to transfer a fairly large amount of data from Internet sites to be cataloged into the cataloging records.

Before we moved to a Windows environment, it was impossible for us to transfer data directly between two different applications. We used a communication software called "Procomm" to copy and paste the information needed. The procedure was cumbersome: we first logged onto the Internet site to be cataloged, copied the information needed using the "screen capture" feature of "Procomm", and then closed that site in order to start another session to edit and paste the information copied. This often resulted in logging on and logging off quite a few times before we could finish one cataloging record. As we could download only a whole screen instead of just the information needed, we sometimes had to do extensive editing to the downloaded screen in a word processing software or in a UNIX editor such as "Pico", which is not a user-friendly interface for text editing. It was a painful and clumsy procedure to capture the data, edit it, upload the edited record, and then paste it into the cataloging record.

This complicated procedure can be an easy task in a Windows environment. Now we usually keep three different Windows sessions open at the same time: one for the Internet cataloging template and the cataloging record, another one for the Netscape session to

examine and retrieve the file or the Internet site to be cataloged, and still another one for the OCLC session or an IRIS (UNL OPAC) session to check or retrieve valid subject headings. Using the copy and paste functions in Windows to transfer data among different sessions is just a matter of a few mouse clicks. The Windows environment significantly simplifies our cataloging procedure.

REAPING THE BENEFITS OF THE INTERNET

In recent years, we have witnessed the explosive development of the Internet, especially the flourishing of the World Wide Web. The Internet can be used in various ways to benefit cataloging.

The Internet can be used to access information needed for a cataloging record, as a vehicle to provide the patron with access to a wide range of information (especially electronic information resources), and as a fast and cost-effective connection method to bibliographic utilities and online services. The Internet provides us with easy and cost-free access to vast information resources. Our authority work team in the cataloging department, for example, takes advantage of free and fast Internet access to the LC Weekly List of Subject Headings. They use it to check the most current new and upgraded LC subject headings in order to keep our authority work up to date and consistent with LC practice. Via the Internet we can also access resources that are not easily available otherwise. As a cataloging librarian in charge of foreign language materials in German, French, and Eastern Asian languages, I use the Internet to access cataloging databases in Europe and Asia where I can find cataloging records in the original languages and reference materials relating to the materials to be cataloged. The Internet is a very useful tool in this regard.

The Internet provides easy, flexible, fast, and cost effective access to bibliographic utilities and other online services. Internet access to OCLC, for example, provides the most flexible access at the best possible cost for OCLC reference services, for dial-access users who have free access to the Internet, and for libraries with OCLC multidrop-line workstations that access the PRISM service fewer than 60 hours per month. For libraries outside the United States, Internet access is likely to be the most cost effective option, due to international tariffs (cf. Accessing OCLC, 1997).

In the last few years, we have seen a significant and increasing number of valuable information resources available through the Internet. World Wide Web resources are creating a vast new source of potential knowledge. At UNL, we decided to take advantage of the new information technology and to play an active role in facilitating access to Internet resources and organizing Web information. We started to catalog Internet resources and build a Gopher-based Internet Resources Catalog in 1993, which migrated to a WWW based database in 1996. So far, about 1000 Internet resources with educational and research value have been cataloged and made available through our WWW database (http://libfind.unl.edu:2020/home.html). Our Internet cataloging efforts have been very much appreciated by the academic community at UNL.

If WWW is the most valuable Internet tool for providing access to a wide range of information, some other Internet tools such as Listserv and FTP also prove to be very beneficial for the cataloging staff. Listservs on the Internet such as Autocat, Passport for Windows, Libsoft, and Web4lib etc. provide forums for all librarians and library staff on the list to share information and discuss topics of particular interest to them. By participating in or just following discussions on these Listservs, we can maintain our knowledge of cataloging-related technology and acquire information about new software.

We can also find solutions to some common cataloging-related problems, and receive help from all over the world when we post our questions and problems on the list. Using FTP, we can access very large amount of files available on a great number of computer systems. It is especially useful to download software such as freeware or shareware and use them in our cataloging practices.

LIBRARIANS TAKE INITIATIVE

Applying new technology to cataloging work is not just the business of information technologists. The successful application of new technology and software in a cataloging environment depends very much on the efforts of cataloging librarians and the collaboration between information technologists and all the cataloging staff.

The responsibilities of an information technologist are to plan information system, acquire the system equipment, get it to work, and make sure that it functions properly. He/she does not necessarily know all the specific applications of the system in a cataloging environment. As cataloging librarians, we pay more attention to these specific applications. We know specifically which part of the cataloging procedure needs to be automated. We have being monitoring the available technical possibilities through various channels, so we are in a good position to take initiatives to apply new technology to our work.

Frequently a sophisticated new information system comes into a library and remains fairly unabsorbed and unused. This also happens to our computer software at home. Most of us do not take full advantage of all the wonderful features of our software. Many useful features of our word processing software such as WordPerfect or Microsoft Works remain unknown to us and therefore unused. Librarians should take the initiative and work

together with information technologists to explore some specific features and the potential of the information system in our libraries in order to apply them to our work. At UNL, our experience with changing the procedure of printing spine label is an example that this could be very beneficial for us.

We have used a Microsoft Works macro to print out spine labels. The advantage of using this macro is that we were able to print our labels exactly the way we wanted them. However, this procedure of label printing is very inefficient. After a book is cataloged or downloaded from OCLC, catalogers write down the call number on a slip of paper and put the slip into the book. The book is then sent to the Marking and Labeling Section for further processing, where the call number needs to be manually typed into the computer, and is then printed out using a Microsoft Works macro. Manually copying the call number from the cataloging record and inputting it into the Works macro slows down the cataloging processing and also causes unnecessary human errors.

Catalog librarians felt the need to change this procedure and initiated the change. We considered and explored various possibilities of printing spine labels directly off of our local information retrieving system (Innovative Information System). The Innovative system does have the spine label printing option, but does not satisfy our needs: it does not provide us with the breakmode and format for call numbers we need; volume and copy information is not printed; and it prints with formfeed which results in waste of labels and papers. Working with our system librarian and the vendor, we have managed to solve these technical problems. Changing the spine label procedure from manual inputting to printing directly off of IRIS has increased cataloging efficiency and accuracy.

In a cataloging environment, there are many ways to have computers do the tedious

repetitive inputting, which prevents typos and graphical errors. A typical example is using macros in the OCLC's software Passport for Windows. This is an area where librarians can not only initiate changes to take advantage of new information technology, but also carry out the changes by themselves.

Passport software is the OCLC flagship communication utility. Passport for Windows is a new cataloging tool which replaces the DOS version of Passport software. Among many new features, Passport for Windows has a very powerful Macro Language. It is completely different from the Passport for DOS function key language, which is essentially just a simple keystroke recorder. OCLC Macro Language uses an embedded BASIC programming language, a powerful language with multiple capabilities. At UNL, we have downloaded and used a good number of macros created by OCLC or other member libraries. We edited some of the downloaded macros to meet our specific network configurations and our specific workflow, and we also wrote macros to carry out our specific cataloging tasks.

Working with macros isn't always easy for librarians because we are not used to the linear, procedural mode of thinking required by programming. We struggle with repeated trials and errors. But it's very rewarding. It has made our work more efficient and improved its quality. At UNL, we do our authority work in-house, and as a NACO library, we also contribute authority records to the national file. We now use a downloaded macro to create completed authority workforms from bibliographic headings. When you place the cursor on a valid bibliographic heading field of a cataloging record and activate the macro, the macro will automatically take all the information needed from the bib record and place it into the right fields in the authority record. We also create macros ourselves for specific functions and specific projects. We have, for example, created a macro for our Agricola

project, which makes it much easier for us to choose different formats, add constant data, and verify subject headings in LC authority files.

CONCLUSION

In the information age, empowering library staff with new information technology has become one of the key issues for the success of a library. This is especially true for college and research libraries, which depend extensively on information technology to provide quality information services to the academic community. We have no choice but to learn and apply new technology in our working environment. Meanwhile, to meet the challenge of the increasing emphasis on technology and networking in the library environment, and the challenge of lack of system staff, librarians need to take the initiative and make changes happen. It can be challenging, but could be very rewarding.

BIBLIOGRAPHY

Accessing OCLC. URL: http://www.oclc.org/oclc/new/n214/n214sr.thm.

Argyris, Chris. *Teaching smart people how to learn*. Harvard Business Review 69 (3), (1991): 99-109.

Houk, Gary; Gauder, Brad. *Maps to 21st century access show how to avoid technological obsolescence*. OCLC Newsletter. (November/December 1996) : 19-22.

Senge, Peter M. *The fifth discipline : the art and practice of the learning organization.* (New York : Doubleday/Currency, 1990).

Whitehair, David. *May CatME for Windows Update*.1 May 1997. Software for Librarians List LIBSOFT@MAIL.ORST.EDU.